



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/642,825	08/19/2003	Tatsuya Kita	DAIN: 350C	3098
6160	7590	11/30/2004	EXAMINER	
PARKHURST & WENDEL, L.L.P. 1421 PRINCE STREET SUITE 210 ALEXANDRIA, VA 22314-2805			LORENZO, JERRY A	
			ART UNIT	PAPER NUMBER
			1734	

DATE MAILED: 11/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/642,825

Applicant(s)

KITA ET AL.

Examiner

Jerry A. Lorengo

Art Unit

1734

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 19 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 21-28 is/are pending in the application.
- 4a) Of the above claim(s) 15 and 16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 21-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☒ Certified copies of the priority documents have been received in Application No. 08/587,948.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 08/19/2003
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## DETAILED ACTION

(1)

### *Election/Restrictions*

Applicant's election of Group II, claims 21-28 in the reply filed on November 19, 2004 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

(2)

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

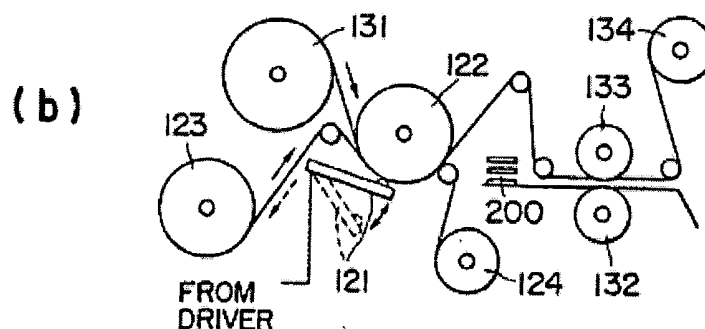
A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 21 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,923,848 to Akada et al.

Regarding applicant claims 21 and 22, Akada et al. disclose an image forming apparatus comprising (Figure 1B(b); column 6, lines 33-65):

- (1) A thermal transfer sheet conveying means 123,124;
- (2) An intermediate transfer medium conveying means 131,134;
- (3) An image forming means comprising a thermal head 121 and platen roller 122; and
- (4) An image transfer means comprising a heating means 132,133. The apparatus of Akada et al. is illustrated below:



(3)

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 23-26 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,923,848 to Akada et al. in view of U.S. patent No. 5,542,768 to Rother et al.

Akada et al., as set forth in section (2), above, disclose an image forming apparatus comprising: A thermal transfer sheet conveying means; an intermediate transfer medium conveying means; an image forming means comprising a thermal head and platen roller; and an image transfer means comprising a heating means. Although Akada et al. disclose, as per applicant claim 24, that the heating means 133 comprises a heat roller they do not specifically teach that the heat roller has a pattern corresponding to that of the optical disk. They are also

Art Unit: 1734

silent, as per applicant claim 23, that the heating means comprises a thermal head. Although Akada et al. disclose that the substrate to be decorated is conveyed along with the intermediate transfer medium between the heated roller and counter roller 132,133, they are silent as to the speed or speed registration capabilities set forth in applicant claims 25 and 26. Although they disclose that the apparatus comprises a counter pressure roller (support member) 132, they do not specifically disclose, as per applicant claim 28, that the support member is configured to support an optical disk and has a cushioning working surface.

Rother et al., also drawn to an image forming apparatus capable transferring images from a transfer sheet to a substrate such as an optical disk, discloses an apparatus comprising:

As per applicant claim 23, a heating means comprising a thermal head 20;

As per applicant claim 24, a heating means having a pattern corresponding to that of an optical disk (Rother et al. disclose that the portion of the heating means 28 which directly contacts the disk varies as the relative portion of the disk varies – column 5, lines 4-6);

As per applicant claims 25 and 26, that the transfer medium conveying means 12,14 is coupled to an optical disk conveying means 30,32,33,35,36 via a controller 45 which provides for registration between the optical disk and the heating means 20 such that the surface speed of the optical disk and the heating means 20 are equivalent ( Figure 1; column 4, lines 11-28; column 7, lines 8-20); and

As per applicant claim 28, that the optical disk support member 38 has a resilient (cushioning) working surface (Figure 1; column 4, lines 8-10). The apparatus of Rother et al. is illustrated below:

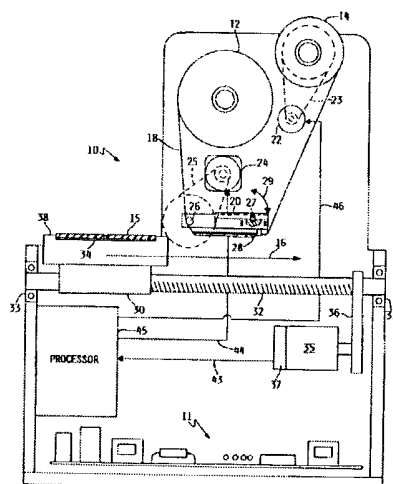


FIG. 1

Given the teachings of Rother et al., it would have been obvious to one of ordinary skill in the art at the time of invention to provide the apparatus of Akada et al. with the means of Rother et al. thereby enabling the Akada et al. apparatus to operate on optical disks as the target substrate motivated by the fact that Rother et al. teaches that thermal transfer printing apparatus, such as that taught by Akada et al., insures the highest quality of printing onto a compact disk (column 2, lines 38-41). Akada et al. further disclose that their apparatus is not limited to any particular substrate and can be utilized broadly and conveniently in such various industrial fields, where unitary formation of various images, characters, symbols, numerals and graphics are desired (column 1, lines 5-12; column 48, line 57 to column 49, line 2). Finally, it would have been obvious to one of ordinary skill in the art at the time of invention to utilize either a heated roller (as taught by Akada et al.) or a thermal head (as taught by Rother et al.) as the heating means in the overall apparatus of Akada et al. motivated by the fact that such means are well known functional equivalents in the art.

(4)

Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over the references as combined in section (3), above, in further view of U.S. Patent No. 5,300,398 to Kaszczuk.

Although the references as combined in section (3), above, disclose a optical disk support member disposed opposite the heating means, they do not specifically disclose, as per applicant claims 27, that the support member has a lubricative working surface. Nonetheless, it would have been obvious to one of ordinary skill in the art at the time of invention to provide the support member with a lubricative or release coated surface motivated by the fact that Kaszczuk, also drawn to intermediate image transfer apparatus for the formation of images on target substrates (such as that disclosed by the primary reference to Akada et al.), disclose that it is known to provide the support or counter-pressure roller in a transfer lamination means with a release or lubricative capability such as by coating with Teflon (column 9, lines 26-35).

(5)

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Such prior art includes references D-F on Form PTO-892.

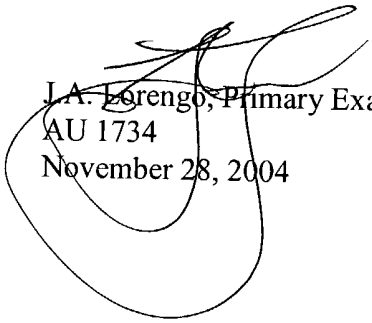
Art Unit: 1734

(6)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jerry A. Lorengo whose telephone number is (571) 272-1233. The examiner can normally be reached on Monday through Friday, 8:30 A.M. to 5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Fiorilla can be reached on (571) 272-1187. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



J.A. Lorengo, Primary Examiner

AU 1734

November 28, 2004